

## CHEMIST

**POSITION SUMMARY:** Performs chemical, physical, and microbiological analysis and testing of water, wastewater, and industrial wastewater to insure compliance with required standards. Professional responsibility and demonstrated good judgment is involved in performing this wide variety of chemical, physical, and microbiological testing.

**SUPERVISION RECEIVED:** Work is performed under the Laboratory Services Manager, Laboratory Supervisor, Plant Superintendent, or their designee.

**ESSENTIAL JOB FUNCTIONS:** *An employee in this position may be called upon to do any or all of the following essential functions. These examples do not include all of the duties which the employee may be expected to perform. To perform this job successfully, an individual must be able to perform each essential function satisfactorily.*

1. Advises and assists other Utility Plant staff as appropriate in matters under scope of authority.
2. Supervises others who perform laboratory work.
3. Troubleshoots problems that arise with laboratory equipment and reagents. Repairs, maintains and calibrates laboratory equipment.
4. Compiles quality control, industrial monitoring, and in-Plant testing reports for review by supervisors.
5. Acquires new skills and testing techniques to ensure the laboratory is using the best available techniques.
6. Responsible for compliance testing and assumes responsibility for the results generated. Approves compliance data for release.
7. Serves as laboratory Quality Assurance Technical Manager.
8. Conducts special projects on treatment plant methods and troubleshoots processing problems with view toward expanding knowledge of treatment processes based on laboratory analysis.
9. Maintains an inventory of chemicals and reagents, and orders supplies and chemicals as they are needed.
10. Assumes responsibility for determining the need for new equipment and the specifications required as well as supervision of delivery, installation and demonstration of new equipment to ensure it is working properly.
11. Ensures water quality through the analysis of water samples taken from all stages of the treatment process.
12. Maintains a neat and safe working place.
13. Performs related work as required.

**KNOWLEDGE, SKILLS AND ABILITIES:** *The requirements listed below are representative of the knowledge, skills,*

*abilities and minimum qualifications necessary to perform the essential functions of the position. A qualified individual with a disability must be able to perform the essential functions of the position with or without reasonable accommodation.*

- A. A Bachelors degree in Chemistry, Biology, Environmental Science or related field supplemented by responsible work experience in a laboratory environment.
- B. Possession of state-issued municipal drinking water (minimum Michigan F4) or wastewater (minimum Michigan D) Operator license.
- C. Possession of a laboratory analyst certification equivalent to CWEA Grade 3 or ABC Class 3. Where no analyst certification has been earned a Masters degree or higher state-issued municipal operator's license (F2 water or B wastewater) may be considered valid substitutions.
- D. Thorough knowledge of modern principles and practices of analytical chemistry as applied to the analysis of water and wastewater;
- E. Awareness of current and emerging technology, regulations, and approved methods for water and wastewater treatment and analysis.
- F. Demonstrated skill in conducting, analyzing, and interpreting the results of laboratory tests of water and wastewater
- G. Demonstrated ability in maintaining accurate records and in assembling and presenting accurate records, charts, statistical analysis and reports.
- H. Demonstrated skill in the use of laboratory testing equipment and ability to perform technical work with a high degree of accuracy and precision.
- I. Demonstrated skill in the operation of office and laboratory equipment including computers, software, a GC, GC/MS, and ICP and other equipment as required.
- J. Demonstrates good professional judgment.
- K. Communicates effectively and presents ideas orally and in writing for varied audiences.
- L. Possesses leadership characteristics and astute interpersonal skills.
- M. Demonstrates effective working relationships and uses good judgment and resourcefulness when working with staff, vendors, other governmental agencies and the public.
- N. Possession of a valid Michigan motor vehicle operator's permit.

**PHYSICAL DEMANDS AND WORK ENVIRONMENT:** *The physical demands and work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. A qualified individual with a disability must be able to perform the essential functions of the position with or without reasonable accommodation.*

While performing the duties of this job, the employee is regularly required to talk or hear. While performing the duties of this job, the employee is regularly required to communicate with others and view and produce written documents. The employee frequently is required to sit; use hands to finger, handle, or feel; and reach with hands and arms. The employee must frequently lift and move items of considerable weight. Bending and stooping are also frequent requirements.

While performing the duties of this job, the employee regularly works in a Water and/or Wastewater laboratory at either Utility Plant and in a business office setting, as well as in the field and around the Plants. The noise level in the work environment ranges from noisy to quiet. While working in the laboratory, circumstances may occur that may involve working with bio-hazardous and/or hazardous materials and require the donning of appropriate protective gear.

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